

中国菊科千里光族新植物(Ⅱ)*

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THE NEW SPECIES OF THE TRIBE SENECEONEAE (COMPOSITAE) FROM CHINA (Ⅱ)

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Key words Compositae; Tribe Senecioneae; *Parasenecio hastiformis*; *P. gansuensis*; *P. jilongensis*; *P. maowenensis*; *Synotis reniformis*

关键词 菊科; 千里光族; 戟状蟹甲草; 甘肃蟹甲草; 九龙蟹甲草; 茂汶蟹甲草; 肾叶尾药菊

1 戟状蟹甲草 新种 图 1

Parasenecio hastiformis Y. L. Chen, sp. nov.

Species forma foliorum *Parasenecioni* hastato (L.) Y. L. Chen similis, sed a quo planta imprimis caulibus superne dense glanduloso-pilosis petiolis foliorum exalatis, involucri phyllariis flosculisque 5, pappi setis brunneo-purpureis conspicue differt.

Herba perennis, rhizomate brevior et crasso ad 10~15 mm diametro, radices fibrosas tomentosae numerosas emittente. Caulis singulus, erectus, 80~100 cm altus, striatus, inferne longe nudus, sparse glanduloso-pilosus, superne dense glanduloso-pilosus. Folia longe petiolata, inferiora sub anthesi emarcida, caulina media late triangulato-hastata vel triangulato-ovata, tenuiter papyracea, 10~15 cm longa, 12~15 cm lata, apice longe acuminata vel caudata, basi late cordata vel hastata, lobis lateralibus breviter triangulatis, margine denticulata, longe mucronulata, nervis basilaribus 3~5, lateralibus ad apicem versus divaricatis, laxe reticulatim conjunctis, interdum in axillis foliorum bulbillis ovoideis tomentosis praedita, supra intense viridia, scaberula, subtus pallide viridia vel cinereo-viridia, secus nervos impressim glanduloso-pilosula; petioli exalati, 6~10 cm longi, basi leviter dilatati, sed non amplexicaules, sparse vel dense glanduloso-pilosuli; folia superiora minora, eis caulibus mediis similia, ovato-triangulata vel triangulato-hastata, breviter petiolata. Capitula numerosa ad apicem caulis et in axillis foliorum laterale racemose vel paniculate disposita; rhachides pedunculique dense capitulo - stipitato - glanduloso - pilosi. Pedunculi 1 ~ 2 -

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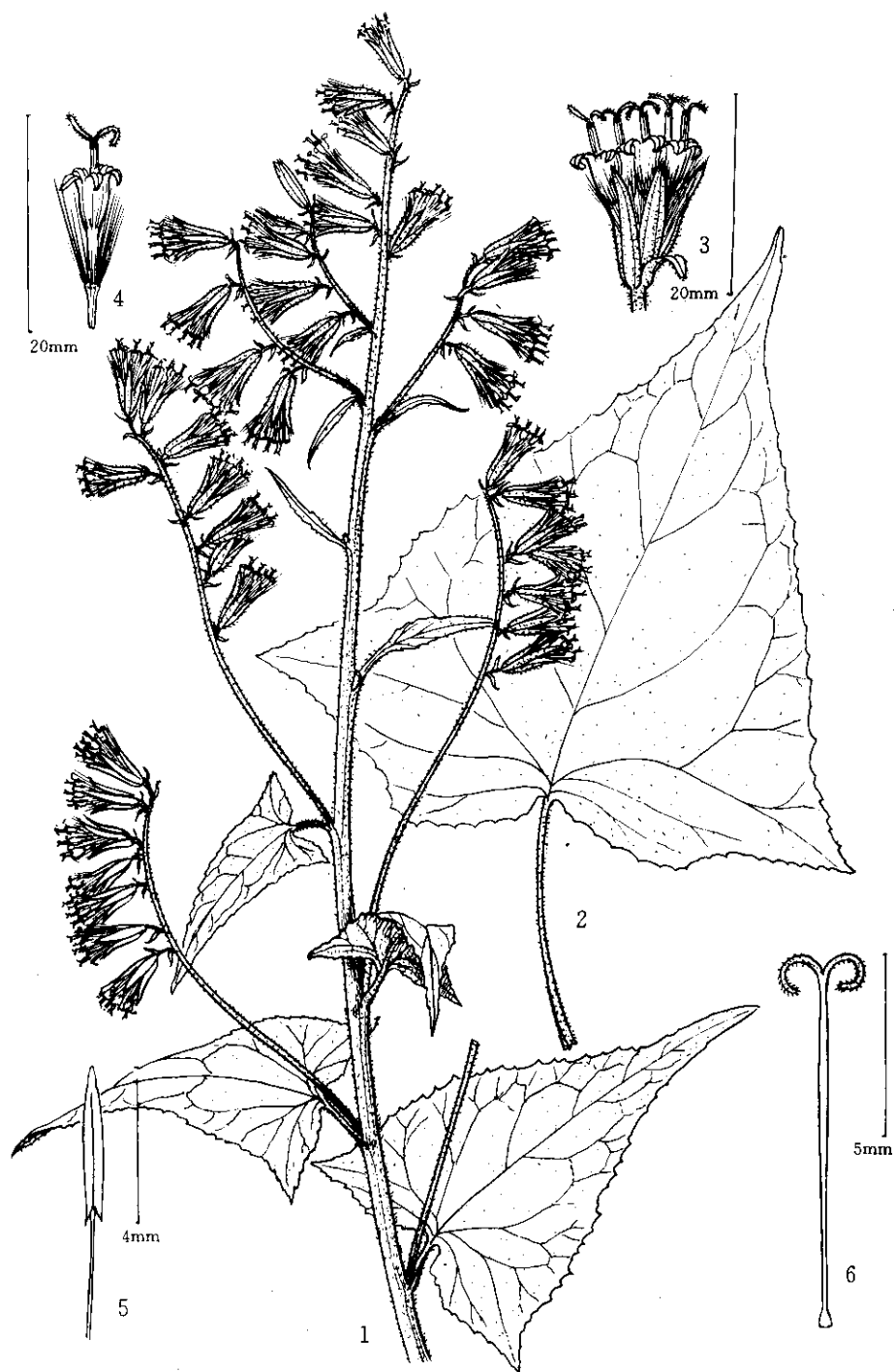


图1 戟状蟹甲草 1. 植株上部; 2. 中部茎叶; 3. 头状花序; 4. 小花及瘦果; 5. 花药; 6. 花柱分枝。(张春方绘)

Fig. 1 *Parasenecio hastiformis* 1. upper part of plant; 2. middle cauline leaf; 3. capitulum;
4. floret with achene; 5. anther; 6. style-arms.

bracteolati, bracteolis linearibus, 1~2 mm longis vel nullis.

Involucrum cylindricum vel anguste campanulatum, 10~11 mm longum, 3~4 mm latum; involucri phyllaria 5, oblongo-lanceolata, 1.5 mm lata, apice acutiuscula vel obtusa, ciliata, margine anguste scariosa, dorso sparse vel dense glanduloso-pilosula, Flosculi 5, plerumque discun superantes; corollae flavae, 8~9 mm longae, tubis tenuibus, 4 mm longis, limbis campanulatis, lobis lanceolatis. Antherae exsertae, basi caudatae. Styli rami recurvati, apice truncati, pappiloso-puberuli. Achaenia cylindrica, fusca, 3~4 mm longa, glabra, costata. Pappi setae fuscae, 8 mm longae.

Yunnan (云南): Lijiang (丽江), alt. 3000~3500 m, ad marginem rivulae, 1939-09-18, R. C. Ching (秦仁昌) 30626 (typus, PE)

本种叶形酷似山尖子 *P. haotatas* (L.) Y. L. Chen, 但植株, 特别茎上部密被腺状短柔毛; 叶柄无翅, 总苞片和小花均为 5; 冠毛褐色或紫褐色与后者明显不同。

2 甘肃蟹甲草 新种 图 2

Parasenecio gansuensis Y. L. Chen, sp. nov. — *Cacalia auriculata* auct. non DC.; Fl. Tsinlingensis 1(5):297, fig. 213. 1985.; Fl. Plat. Sin. 5:343. 1989.

Species *Parasenecioni auriculato* (DC.) Y. L. Chen valde similis, sed a quo laminis foliorum quinquangulato-hastatis, petiolis ad basin versus in auriculam dilatatis, auriculis 1.5~2.5 cm latis, ovatis vel suborbicularibus, amplexicaulibus, integris vel remote dentatis, rhachidibus pedunculisque capitulo-stipitato-glanduloso-pilosulis facile differt.

Herba perennis, rhizomate crasso ad 15 mm in diametro, radices fibrosas tomentosas numerosas emittente. Caulis singulus, erectus, 60~80 (100) cm altus, striatus, sparse pilosus vel subglaber, inferne longe nudus. Folia longe petiolata, inferiora sub anthesi emarcescentia, ea media papyracea; lamina quinquangulato-hastata, 9~13 cm longa, 9~14 cm lata, apice acuta vel acuminata, basi hastato-cordata, lobis centralibus magnis, eis lateralibus minoribus, triangulatis, superioribus longioribus, inferioribus brevioribus, margine irregulariter repando-dentatis, mucronulatis, nervis basilaribus 5~6, lateralibus ad apicem versus divaricatis, supra impressis, subtus prominentibus, supra viridis, sparse adpresse pilosula, subtus cinereo-viridis, ad nervos pilosula; petioli 5~8 cm longi, ad basin in auriculam sensim dilatati, auriculis ovatis vel rotundatis, 1.5~2.5 cm latis, integris vel remote denticulatis, sparse pilosuli; folia superiora eis mediis similia, sed minora, breviter petiolata, suprema triangulato-hastata, sessilia, basi amplexicaulia, late auriculata. Capitula numerosa, ad apicem caulis vel in axillis racemoso-vel paniculato-disposita; rhachides pedunculique capitato-stipitato-glanduloso-pilosi; pedunculi 1~2 mm longi, bracteolis 1~2, linearibus. Involucrum cylindricum, 6~7 mm longum, circ 2 mm latum; involucri phyllaria 5, lineari-lanceolata, 0.5~1 mm lata, apice acutiuscula vel obtusa, rubro-purpurascens, margine anguste scariosa, dorsaliter sparse glanduloso-pilosa vel glabra. Flosculi 5~6; corollae flavae, 6~7 mm longae, tubis tenuibus, 3 mm longis, limbis late tubulosis, lobis lanceolatis, acutis. Antherae exsertae, 3~4 mm longae, basi caudatae. Styli rami recurvati, apice truncati,

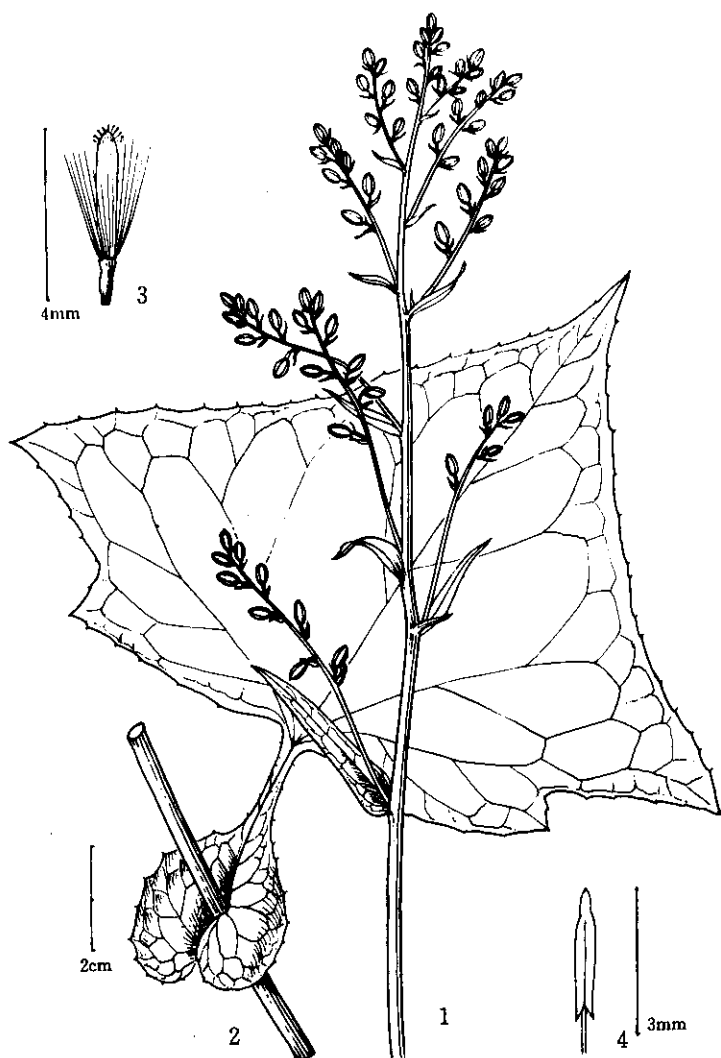


图2 甘肃蟹甲草 1. 植株上部; 2. 中部茎叶; 3. 小花; 4. 花药。(张春方绘)
Fig. 2 *Parasenesio gansuensis* 1. upper part of plant; 2. middle cauline leaf; 3. floret; 4. anther.

pappiloso-puberuli. Achaenia cylindrica, 3~4 mm longa, glabra, costata. Pappi setae albae, 6~7 mm longae.

Gansu(甘肃): Zhouqu (舟曲), in declivo alpino, alt. 2000 m, 1958-09-22, Y. G. He (何叶祺)813; Tianshui (天水), ad marginem fruticetis, alt. 1400 m, 1951-08-10, K. M. Liu (刘继孟)10414; ibid. W. Z. Zhang (张万珍)56; ibid. Xiaolongshan (小陇山), 1956-05-16, Yellow river Exped. (黄河调查队)3845; Xigu (西固), in sylvis humidis, alt. 2500 m, 1951-08-13, T. B. Wang (王作宾)14799; Kangxian (康县), in sylvis, alt. 1350 m, 1963-07-20, Z. Y. Zhang (张志英)16287 (typus, PE); **Shaanxi** (陕西): Foping (佛坪), alt. 1350, 1952-07-14, K. T. Fu (傅坤俊)5013; Liuba (留坝), in sylvis, alt. 1600 m, 1952-10-16 K. T. Fu, 6266.

本种外形近似耳叶蟹甲草 *P. auriculatus* (DC.) Y. L. Chen, 但叶片五角状戟形, 叶

柄向基部逐渐扩大成直径 1.5~2.5 cm 全缘或具疏齿的叶耳;叶耳卵形或近圆形,抱茎;茎上部,花序轴和花序梗均被头状具柄的腺毛与后者容易区别。在秦岭植物志第 1 卷 5 分册中所记载的 *Cacalia auricultus* DC., 无论是从其描述或是图看来似应为本种的错误鉴定。两者在地理分布上亦完全不同。

3 九龙蟹甲草 新种 图 3

***Parasencio jiulongensis* Y. L. Chen sp. nov.**

Species habitu *Parasenecioni taliensi* (Franch.) Y. L. Chen, similis, sed a quo caule scapiformi foliis 3~4, ad sub basin confertis, laminis foliorum cordatis vel late ovato-cordatis, glabris, capitulis ad apicem caulis spicato-racemoso-dispositis, secundis, involucri phyllariis et flosculis 5, facile differt.

Herba perennis, rhizomate tenui, prostrato vel obliquo, radices fibrosas numerosas emittente. Caulis singulus, scapiformis, gracilis, erectus, 30~35 cm altus, striatus, glaber. Folia 3~4, supra basin conferta, longe petiolata, sub anthesi persistentia; lamina foliorum papyracea, late ovato-cordata vel cordata, apice obtusa vel acutiuscula, mucronulata, basi cordata vel subtruncata, margine repando-dentata, mucronulata, nervis basilaribus 3~5, lateralibus apicem versus divaricatis, supra viridis, sparsissime strigosa vel subglabra, ciliata, subtus in sicco purpurascentia, glabra; petioli exalati, (3)4~6 cm longi, glabri ad basin leviter dilatati, semiamplexicaules. Capitula discoidea, 8~10, ad apicem caulis spicato-racemoso-disposita, secunda. Pedunculi 2~4 (5) mm longi, recurvati bracteolis 1~2, linearibus vel lineari-lanceolatis, sparse araneosis vel plus minus glabratiss. Involucrum cylindricum, circ. 10 mm longum, 2~3 mm latum; involucri phyllaria 5, linearia vel lineari-lanceolata, 10 mm longa, 0.5~1 mm lata, apice acutiuscula vel obtusa, margine anguste scariosa, dorso glabra. Flosculi 5, omnes tubulosi, discum conspicue superantes. corollae flavae, 5~6 mm longae, tubis tenuibus 1.5~2 mm longis, limbis infundibularibus, lobis lanceolatis, acutis. Antherae exsertae, 4 mm longae, basi caudatae; styli rami recurvati, apice truncati, pappiloso-puberuli. Achaenia cylindrica, flavo-brunnea, 3 mm longa, glabra, costata. Pappi setae albae, 5~6 mm longae.

Sichuan (四川): Jiulong(九龙), subter sylvis Abietis, 1960-10-15, T. S. Yin (应俊生)4823(typus, PE).

本种近似大理蟹甲草 *P. taliensis* (Franch.) Y. L. Chen, 但茎为葶状;叶 3~4 枚,通常密集于近茎的基部,叶片心形或宽卵状心形,两面均无毛;头状花序偏一侧着生,在茎端排成穗状总状花序;总苞片和小花各 5 枚,与后者不难区别。

4 茂纹蟹甲草 新种 图 4

***Parasenecio maowenensis* Y. L. Chen, sp. nov.**

Species habitu *Parasenecioni auriculato* (DC.) Y. L. Chen similis, sed a quo form a foliorum, indumentis, involucri phyllariis et flosculis in numero differt.

Herba perennis, rhizomate brevi et crasso, subovato ad 10 mm diametro, radices numerosas pilosas emittente. Caulis singulus, erectus vel inferne curvatus, 60~65 cm altus,

striatus, inferiore longe nudus, sparse vel superne dense flavo-brunneo-capitulo-stipitato-pilosus. Folia inferiora sub anthesi emarcida, caulina media 2, longe petiolata; lamina tenuiter

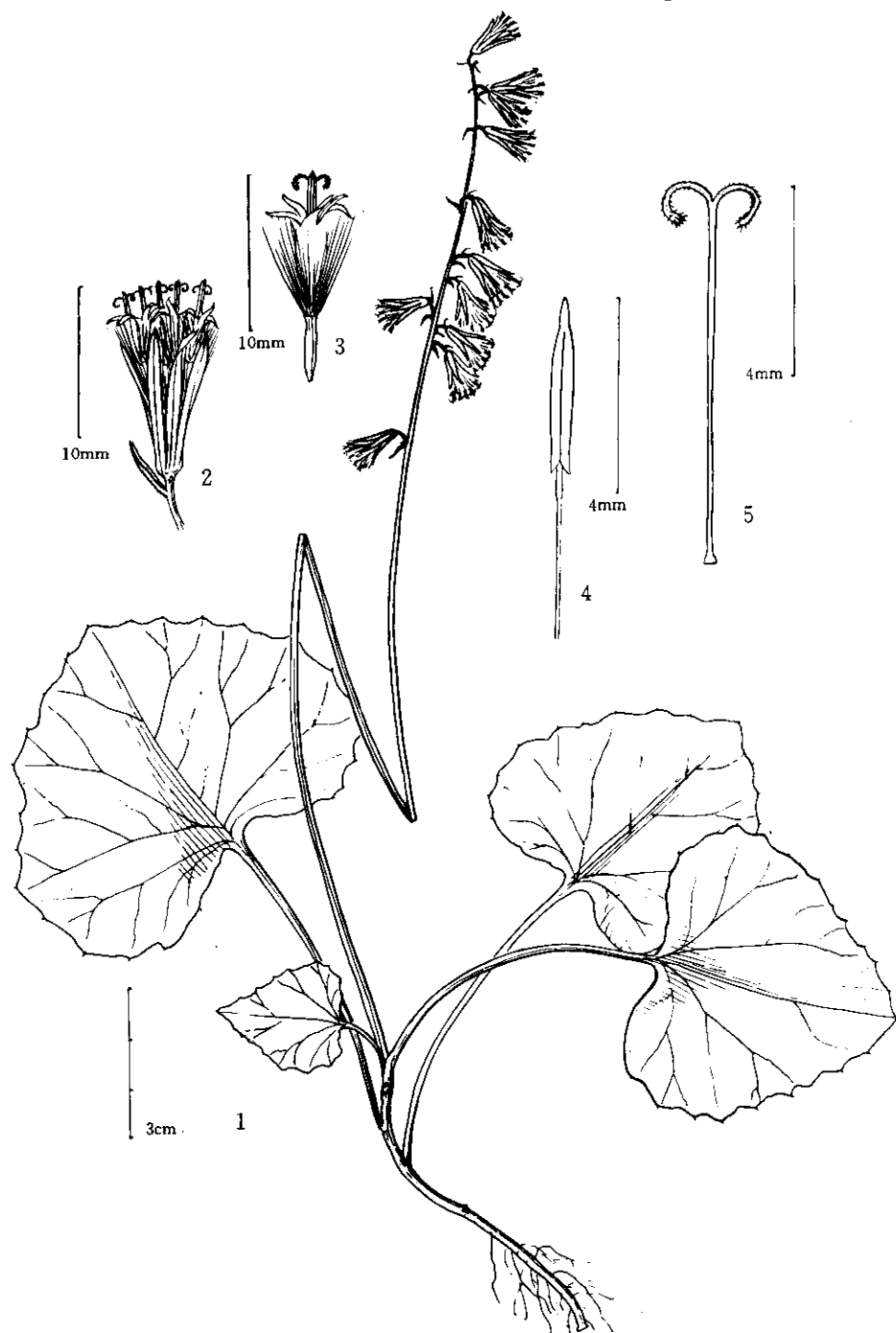


图3 九龙蟹甲草 1. 植株; 2. 头状花序; 3. 小花及瘦果; 4. 花药; 5. 花柱分枝。(张春方绘)
Fig. 3 *Parasenecio julongensis* 1. plant; 2. capitulum; 3. floret with achene; 4. anther; 5. style-arms.

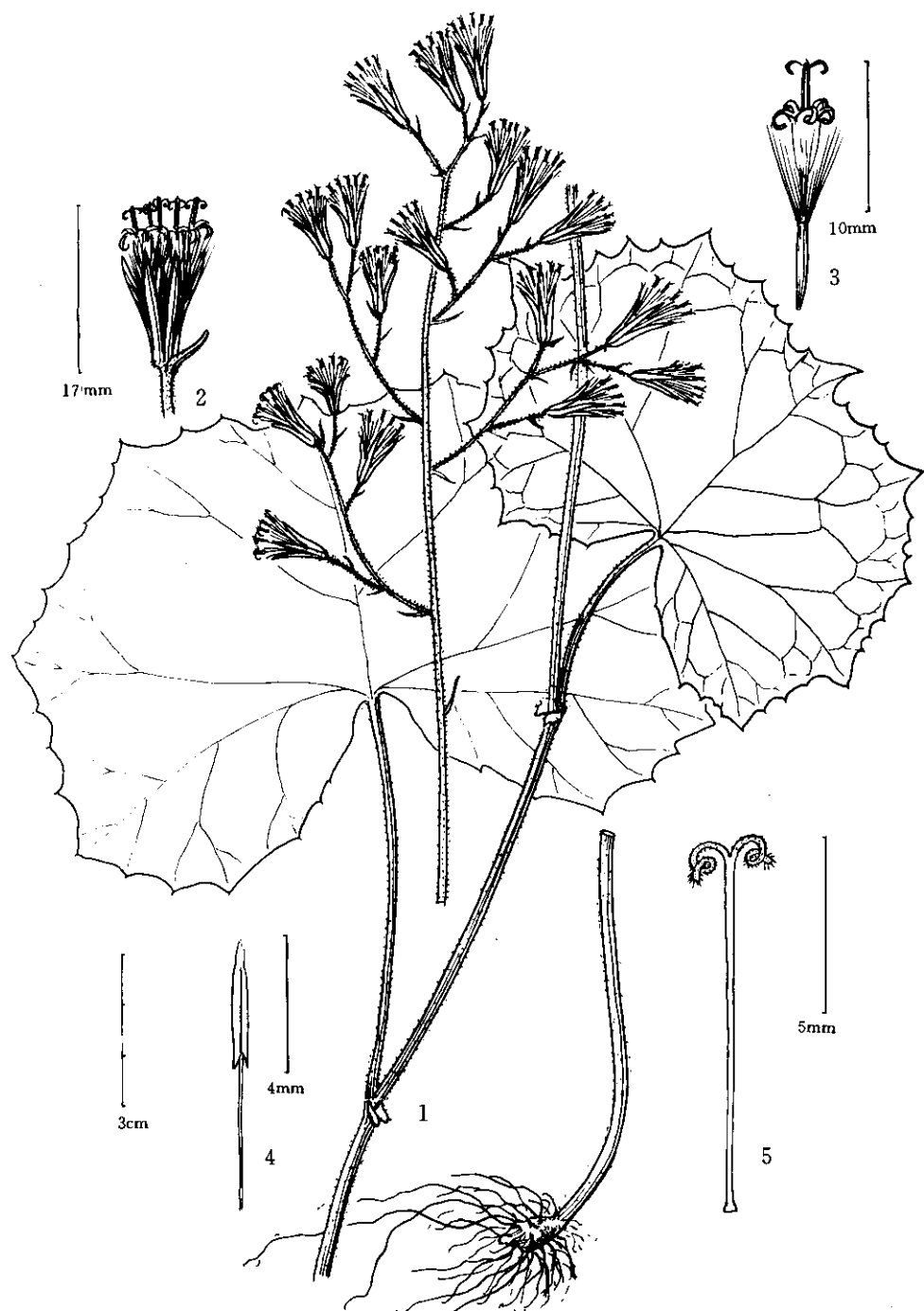


图4 茂汶蟹甲草 1. 植株; 2. 头状花序; 3. 小花及瘦果; 4. 花药; 5. 花柱分枝。(张春方绘)
Fig. 4 *Parasenecio maowensis* 1. plant; 2. capitulum; 3. floret with achene; 4. anther; 5. style-arms.

papyracea, complanato-reniformis, 6~9 cm longa, 12~14 cm lata, apice retusa vel sub-

truncata, triangulato-rostrata, basi profunde cordata, margine irregulariter repando-dentata, aliquot dentibus majoribus deltoideis, mucronulatis, capitato-stipitato-glanduloso-pilosulis, nervis basilaribus 3~5, lateralibus ad apicem versus divaricatis, supra intense viridis, subtus pallide viridis, utrinque glabra; petioli exalati, 4~8.5 cm longi, basi in auriculam dilatati, amplexicaules, auriculis integris vel remote denticulatis, capitulo-stipitato-glanduloso-pilosulis, folia suprema reducta, bracteiformia, bracteis linearibus, 6~8 mm longis. Capitula numerosa, ad apicem caulis laxe divaricato-paniculata; rhachides et pedunculi dense capitato-stipitato-glanduloso-pilosuli; pedunculi graciles, 6~13 mm longi, bracteolis 1~2, linearibus. Involucrum cylindricum, 10~11 mm longum, 2~3 mm latum; involucri phyllaria 4, viridia, linearia vel lineari-lanceolata, 0.5~1 mm lata, apice acuta, margine anguste scariosa, dorso sparse capitato-stipitato-glanduloso-pilosula. Flosculi 5, omnes tubulosi, discum conspicue superantes; corollae flavae, 8~9 mm longae, tubis tenuibus, 3 mm longis, limbis anguste campanulatis, lobis lanceolatis. Antherae exsertae, basi caudatae; styli rami recurvati, apice truncati, pappiloso-puberuli. Achaenia lineari-cylindrica, flavo-brunnea, 6 mm longa, glabra, costata. Pappi setae albae, 7 mm longae.

Sichuan(四川): Maowen(茂汶), in declivo vallis, alt. 2750 m, 1975-08-01, Sichuan Exped. (四川植物采集队)11049(typus, PE)

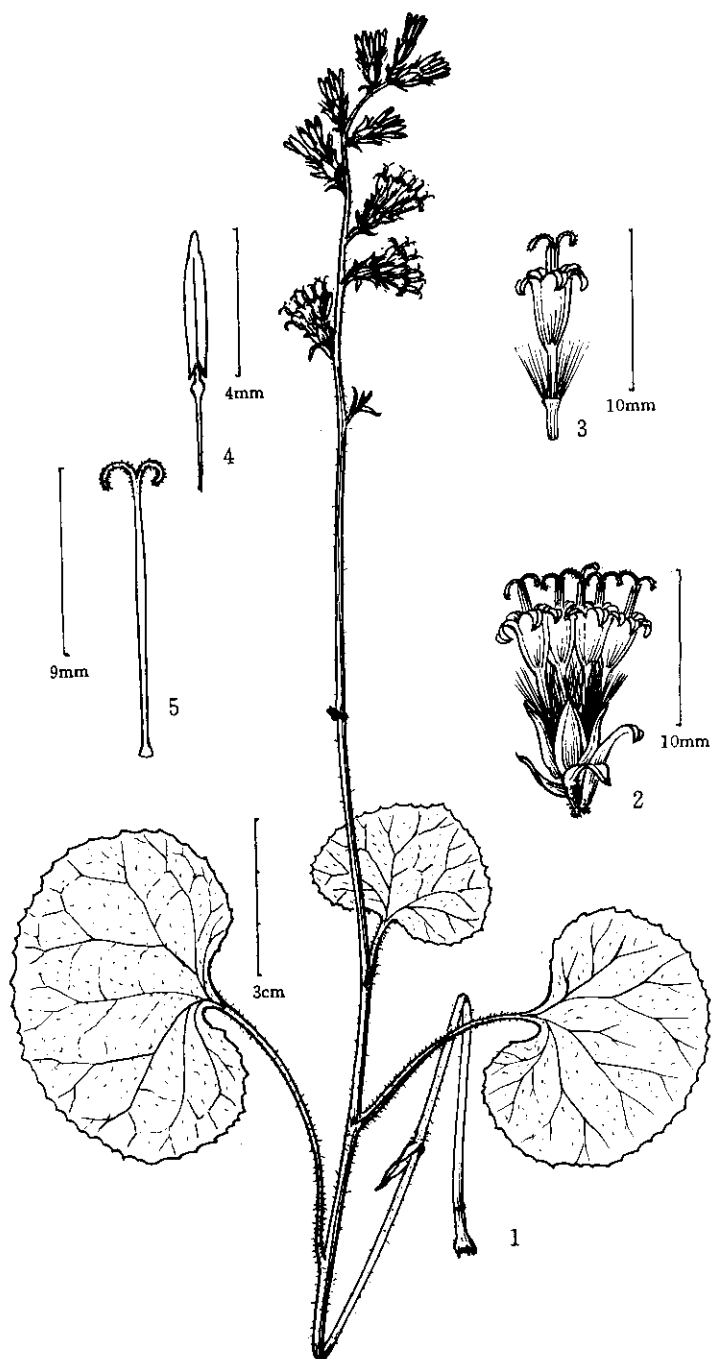
本种外形近似耳叶蟹甲草 *P. auriculatus* (DC.) Y. L. Chen, 但叶形、毛被和总苞片及小花数目均不同于后者。

5 肾叶尾药菊 新种 图 5

Synotis reniformis Y. L. Chen, sp. nov.

Species insignis foliis caulinis 2~3, ad medium caulis confertis reniformibus vel cordato-reniformibus, supremis reductis, bracteiformibus, capitulis solitaris in axillis bractee racemoso-dispositis, involucri phyllariis flosculisque 5, phyllariis subcoriaceis a speciebus ceteris Chinensium generis differt.

Herba perennis, rhizomate ignoto. Caulis singulus tenuis, erectus vel ad basin curvatus, striatus, sparse pilosus vel plus minus glabrescens. Folia basilaria inferioraque sub anthesi emarcida, squama 1~2 praedita, ea caulina media 2~3, conferta, longe petiolata; lamina papyracea, reniformi vel cordato-reniformis, 3~4 cm longa, 5~6.5 cm lata, apice rotundata, basi cordata, in petiolum cuneatim attenuata, margine repando-dentata, mucronulata, supra viridis, adpresse strigosa, subtus cinereo-viridis, araneosa, nervis basilaribus 3~5, lateralibus ad apicem versus divaricatis, reticulatis; petioli exalati, 3.5~5 cm longi, sparse araneosi pilosuli mixti, basi leviter dilatati, semiamplexicaules; folia suprema reducta, bracteiformia, linearia vel lineari-lanceolata, 5~10 mm longa, 1~1.5 mm lata, acuta. Capitula discoidea, in axillis bractee solitaria, racemosim disposita, pedunculis 1~2 mm longis, dense tomentosis, basi 3~4-bracteolatis bracteolis linearibus, 1/2 involucri aequantibus. Involucrum anguste campanulatum, 4~5 mm longum, 3~4 mm latum, involucri phyllaria 5, oblonga vel oblongo-lanceolata, 3~4 mm longa, circ 1.5 mm lata, apice



leviter acuta vel obtusa, subcoriacea, margine angustescariosa, dorso glabra. Flosculi 5, omnes tubulosi, disco conspique longiores; corollae flavae, 7 mm longae, tubis 3 mm longis, limbis campanulatis, lobis ovato-lanceolatis, 1.5~2 mm longis, acutis. Antherae exsertae, 4 mm longae, basi caudatae. Styli rami recurvati, apice obtusi vel truncati, pappiloso-puberuli. Achaenia cylindrica, 2~2.5 mm longa, glabra. Pappi setae albae 4~5 mm longae.

Yunnan (云南): Qiaojia (巧家), Weining (威宁), alt. 3000 m, ad marginem fluvii in valle, 1959-07-30, Y. Y. Hu et D. Z. Li (胡月英、李大朝) 597048 (typus, PE)

这一特殊的种, 茎生叶仅 2~3, 通常集生于茎中部, 肾形或心状肾形, 最上部的叶退化而呈苞片状; 头状花序单生于苞片中, 排列成总状; 总苞片和小花各 5 枚; 总苞片近革质与本属国产的其它种都有明显的不同。

图 5 肾叶尾药菊 1. 植株; 2. 头状花序; 3. 小花及瘦果; 4. 花药; 5. 花柱分枝。(张春方绘)

Fig. 5 *Synotis reniformis* 1. habit; 2. capitulum; 3. floret with achene; 4. anther; 5. style-arms.